

1 Amendments to the Drawings

2 The attached sheet of drawings include changes to sheet 1,
3 Figure 1B.

4 Attachment: Replacement sheet 1 and Figure 1B.

5 Annotated sheet 1 and Figure 1B.

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REMARKS

The specification was objected to for informalities, namely, that on Figure 1B, it is obvious that two carbon atoms carry the improper five bonds. Re-drawing the chemical structure is required. Applicant requests reconsideration. Amended drawing is provided herewith.

The specification and claims were objected to for further informalities. Applicant requests reconsideration. The claims and specification have been accordingly corrected.

Claims 1-9 and 11-18 were rejected as anticipated by Noding and rejected as anticipated by Cheng with evidence of Noding. Claim 10 was rejected as unpatentable over Noding in view of Cheng in view of Stupp. Applicant requests reconsideration.

The present invention is characterized by processing polyaniline in aqueous solution and hence the polyaniline nanofibers are hydrophillic. The polyaniline fibers are hence not formed by precipitation where the precipitation is not hydrophillic. The examination incorrectly states that the "interfacial polymerization process can be used to more effectively improve the yield of polyaniline as well as increasing its conductivity and molecular weight". As this statement is incorrect and it suggests that Noding anticipated increased molecular weight and conductivity, indicating that Noding did not generate

1 polyaniline nanofibers from the claimed process, though an
2 undefined interfacial process was mentioned. (Col 6 line 2)

3
4 The use of the term precipitate and the use of the persulfate
5 at Col. 1, line 5 and 19, teach the generation of bulk polyaniline.
6 Noding teaches a single phase using H₂O₂ hydrogen peroxide and a
7 metal containing compound. The present invention teaches a two-
8 phase process, aqueous and organic, without the use of a metal
9 containing compound for yield improvement. The present invention
10 relies upon the discovery that yields are sufficient using the
11 hydrophillic process of two-phase aqueous and organic solution.
12 Noding does not teach an interfacial process. Hydrogen peroxide is
13 not found in present claim 4. Even when water is used as a solvent,
14 there is a precipitate and hence the product is not hydrophillic.
15 Noding teaches away from claim 1 by teaching that the monomers are
16 disposed with the acid and also teaches a single-phase process, and
17 does not specifically teach an interfacial process according the
18 present invention. The cited references do not teach a two-phase
19 aqueous and organic interfacial process for generating polyaniline
20 nanofibers. Allowance of the claims is requested.

21 Respectfully Submitted

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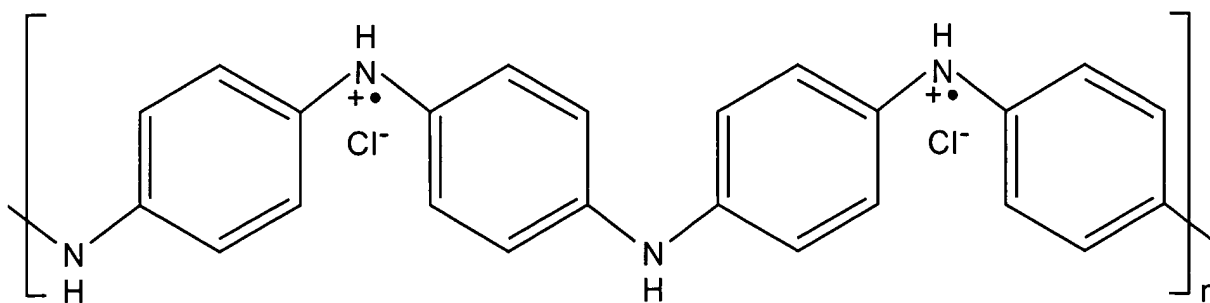
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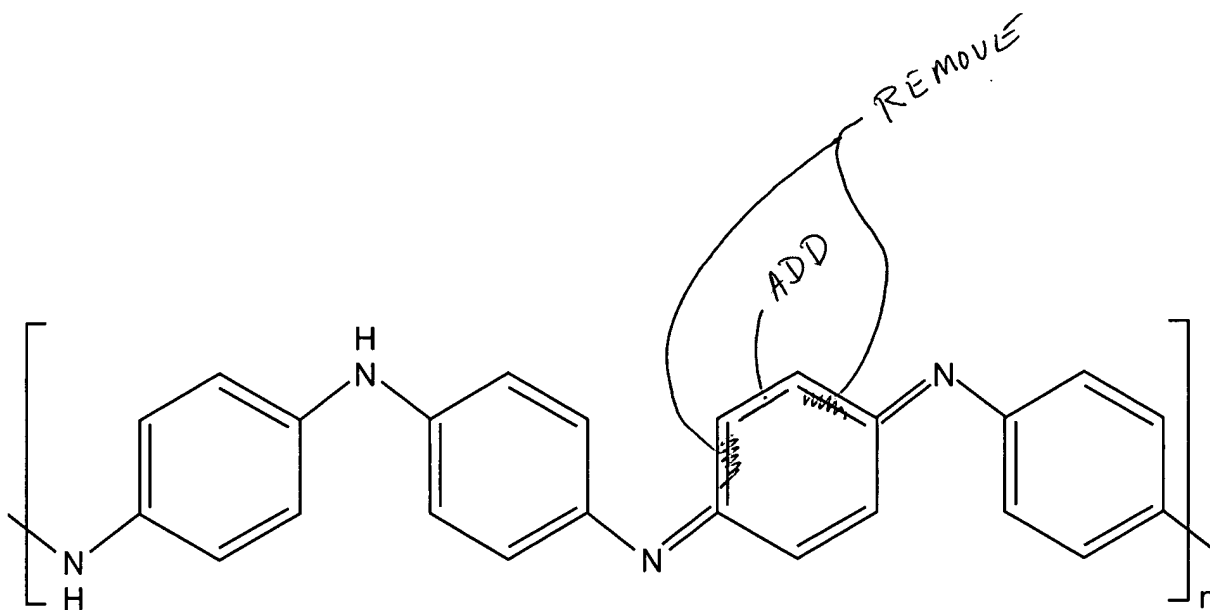
28 Reg. No. 32,096

ANNOTATED SHEET



DOPED POLYANILINE EMERALDINE SALT ($\sigma = 10 \text{ S/cm}$)

FIG. 1A



DEDOPED POLYANILINE EMERALDINE BASE ($\sigma = 1 \times 10^{-10} \text{ S/cm}$)

FIG. 1B